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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/598,223

08/22/2006

Herbert E. Schwartz

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23405

7590

08/18/2009

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EXAMINER

LEVINE, JOSHUA H

ART UNIT

PAPER NUMBER

3774

MAIL DATE

DELIVERY MODE

08/18/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/598,223	SCHWARTZ, HERBERT E.	
	<b>Examiner</b>	<b>Art Unit</b>	
	JOSHUA LEVINE	3774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 35-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 35-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This office action is responsive to the amendment filed on 05/15/2009. As directed by the amendment: claims 35-36, 38, 40-43, 45-47, 49 have been amended, claims 37, 44, 48, 50 have been cancelled, and new claims 51-55 have been added. Thus, claims 35-55 are presently pending in this application.

### ***Response to Arguments***

2. Applicant's arguments filed 05/15/2009 have been fully considered but they are not persuasive.

Regarding claim 35, the applicant argues that Hayhurst (5647874) does not teach an attachment point on a cartilage replacement material. The examiner affirms the rejection as the attachment point is considered the place where the flexible member is connected to the cartilage replacement material. Retainer 68 describes the location of the flexible member's attachment point as the position where it attaches to the inside of the cartilage replacement material in the implanted state.

The applicant argues that Fallin et al. disclosed a single suture anchor system that does not teach any type of pulley mechanism that may be used to move a piece of tissue into a defect site. The examiner affirms the rejection as Fallin et al. disclosed a two suture anchor system (suture 60 and line 94) that uses two pulley mechanisms formed by passageways 68A-68C that are used to tension an anchor to a defect site. By pulling on suture 60, the anchors move closer to each other while locating and retaining a piece of cartilage (paragraph 65).

The applicant argues that the loop and suture element relied upon by the examiner is

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not a slip knot. The examiner affirms this rejection as loop 88 is loosened and tightened to lock and release suture 84.

3. Regarding claim 46, the applicant argues that the reference of Hayhurst does not disclose an attachment point whose location on cartilage replacement material is permanently coupled. The examiner affirms this rejection as Hayhurst does disclose an attachment point whose location on cartilage replacement material is permanently coupled when in an implanted state. Secondly, claim 46 never explicitly includes the limitation of a permanently coupled attachment point.

### **Claim Rejections - 35 USC § 103**

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 35-36, 38, 43, 45-47, 49, and 54-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayhurst (5647874) in further view Fallin et al. (6972027).

6. Regarding claims 35-36, 38, 46-47 and 54, Hayhurst disclosed all the elements of the claim including, a section of cartilage replacement material 98 (figure 17), a biocompatible anchor 110 (figure 19) shaped to site within tissue at the defect site and retain said section of cartilage replacement material in the defect site as shown in figure 17, a biocompatible flexible member 118 (figure 19) traversing through said section of

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cartilage replacement material multiple times (column 10 lines 18-21), said flexible member being configured to attach to said section of replacement material at an attachment point 68 (figure 17), except for the flexible member threaded twice through the anchor. Fallin teaches an anchor 56 (figure 7) with a flexible member 60 (figure 7) threaded through said anchor at least twice to form at least two pulley mechanisms and a lockable slidable device as shown in figure 7. The loop one starts at passageway 68A (figure 7) and ends at passageway 68B (figure 7). The second loop is between passageways 68B and passageway 68C. The opposite end 84 (figure 7) of said flexible member is looped around said flexible member 60 to form a sliding device 88 (figure 7) for adjusting said distance between attachment point 58 (figure 7) and said anchor. The sliding device is a slipknot. A slipknot is a knot that can easily be made tighter or looser by pulling one of its ends (Cambridge Advanced Learners Dictionary). Knot 88 can be made looser by pulling at one of its ends by line 95/97 (figure 7, column 8 lines 35-41). Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention to include the two loops and the knots, as suggested and taught by Fallin, for the purpose of creating loops and knots that allow slack in the flexible member for easy placement of the anchors as well as a mechanism to retract the slack in order to sufficiently tightly close tears to ensure proper healing (column 8 lines 28-323, column 8 lines 38-41).

7. Regarding claim 43, 45 and 49-50, Fallin teaches a flexible member that further includes a stopping member 88 (figure 15 column 6 lines 41-48), said stopping member engageable with said section of cartilage replacement material where the stopping

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device is a slipknot. It would be obvious to one of ordinary skill in the art at the time of the invention to include the stopping member in order to create a device that allows for a sufficiently tight closure of the cartilage replacement material to the bone to ensure proper healing.

8. Regarding claim 55, Hayhurst disclosed wherein the section of cartilage replacement material comprises a scaffold 99 (tissue, figure 18), the scaffold being fabricated from a biocompatible material, tissue being capable of facilitating at least one of chondral and osteochondral integration.

9. Claims 39-41, and 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayhurst (5647874) in further view Fallin et al. (6972027) in further view of Binette et al (PG Pub no. 20050113937). Binette teaches a section of cartilage replacement material that is formed at least in part of a material selected from the group consisting of polyethylene and chitosan (paragraph 42). It would be obvious to one of ordinary skill in the art at the time of the invention to include these materials, as suggested and taught by Binette, for the purpose of facilitating cohesion of tissue fragments to allow an implant to take a semi-solid form allowing it to be cured into a solid implant.

10. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayhurst (5647874) in further view Fallin et al. (6972027) in further view of Wolf et al (PG Pub no. 20040267314). Wolf teaches a flexible member that is a braided suture (paragraph 22). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the braided sutures, as suggested and taught by Wolf, for the

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purpose of allowing more flexibility to maneuver in surgical applications while adding tensile strength to the suture (paragraph 22).

***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA LEVINE whose telephone number is (571)270-5413. The examiner can normally be reached on Monday-Thursday 7:30am-5:00pm ETA.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Isabella can be reached on 571-272-4749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JOSHUA LEVINE/  
Examiner, Art Unit 3774

/DAVID ISABELLA/  
Supervisory Patent Examiner, Art Unit 3774